

PLAN OF DEVELOPMENT

OURAY PARK WATER SYSTEM IMPROVEMENTS

OURAY PARK WATER CONSERVANCY DISTRICT

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Ouray Park Water System Improvements Project Summary

Ouray Park Water Improvement District (OPWID) has a current right-of-way (UTU-029706) with the Bureau of Land Management (BLM) that authorizes a 4" buried waterline and a 20,000 gallon culinary water tank. This tank and waterline have been in service for approximately 40 years. Growth over the years and regulatory changes to fire flow and storage requirements have made the facilities obsolete and they are unable to meet the increased demands. Additional capacity is needed in both the tank and pipeline to fulfill minimum state requirements for fire storage, fire flow and to allow for growth.

The District plans to build a new tank and waterline near the existing tank and waterline. The existing tank and waterline will remain in service until future projects are constructed that will allow the facilities to be abandoned.

In order to meet new demands and fire flow and storage requirements, a new 250,000 gallon tank will be constructed to provide domestic water and fire suppression water storage for approximately 25 existing households on the bench north of Pelican Lake. In recent years the District has not been able to sell new connections to the water system on the bench because the existing tank does not have the capacity to serve their culinary or fire suppression needs. The tank will also provide water for fire suppression for the entire water district.

The new tank will be located just to the northeast of the exiting tank. The dimensions of the proposed tank will be approximately 80 feet in diameter and 8 feet in height. The tank will be constructed of reinforced concrete, and it is anticipated that the tank will be partially buried. The portion of the tank that is above grade will be covered with mounded soil against the wall and over the lid to allow native vegetation to grow and minimize the visual impact. When completed, the new tank will be fenced with a 4' barbed wire fence.

A road right-of-way (ROW) is also requested to access the tank. An existing two track road will be utilized for this purpose and improvements will be made where necessary to make the road passable for construction traffic. The dimensions of the proposed permanent road right-of-way across BLM-managed land is 759' long and 20' wide.

The tank will feed the OPWID system through a new 12" PVC line that will run parallel to the existing 4" line that was authorized under UTU-029706. The right-of-way being applied for will be in the same general location as the existing right-of-way for the 4" waterline. The permanent waterline right-of-way will be 33' wide, the same as the existing right-of-way. A 50' wide temporary construction easement is requested. The new waterline will be a 12" PVC line that will cross BLM land in three different areas and have a combined length of pipe (on BLM land) of 3,850 feet.

PLAN OF DEVELOPMENT

1. Purpose and Need for the Facility

a. What will be constructed

The project consists of the construction of the following items:

- 3,850 feet of buried 12" C900 PVC water pipe
- A 250,000 gallon, partially buried, concrete culinary water storage tank

b. Commodity to be transported and for what purpose

The pipeline and storage tank will be used to store and distribute domestic drinking water and fire suppression water to homes and business in the Ouray Park Water Improvement District.

c. Is the pipeline for a gathering system, trunk line, or distribution line

The pipeline will be used as a water transmission line.

d. Will it be surface or subsurface

The pipeline will be completely buried, the storage tank will be partially buried and then covered with soil.

e. Length and width of the right-of-way and the area needed for related facilities

The permanent pipeline right-of-way will be the same dimensions as the existing right-of-way and will consist of three 3 sections, each being 33 feet wide and totaling 3,850 feet long. The permanent tank ROW will be 200 feet by 200 feet square. Overall the total areas of permanent ROW is 3.84 acres.

A temporary construction ROW for the water line and tank is being requested. An additional 8.5 feet on both sides of the proposed permanent ROW is requested for the water line, making the temporary construction width 50 feet. An additional 200 feet by 200 feet temporary construction ROW is proposed adjacent to and northeast of the proposed permanent tank ROW.

A map of the proposed ROW, including temporary construction ROW, is included in Exhibit A.

f. Is this ancillary to an existing right-of-way

There is a right-of-way in place (UTU-029706) for the existing 4 inch line and 20,000 gallon tank. The proposed waterline will follow the exiting 4 inch line and the new ROW is requested in the same location as the existing ROW. An access road to the existing tank and the new tank is being requested. ROW UTU-029706 (the existing 20,000 tank) did not include an access road. The existing tow track road will be utilized. Some areas of the existing two track road are currently unpassable for construction equipment, such as a concrete truck. These areas will be improved by removing rock outcroppings and smoothing the road surface until drivable. Gravel or road base may be placed in areas where needed. The permanent road will be 12' wide. A map of the proposed ROW is included in Exhibit A.

g. List alternative routes or locations

The location for the ROW was selected based on the existence of a current pipeline and ROW, and is proposed in an effort to minimize disturbance.

2. Right-of-Way Location

a. Legal description

A copy of the original ROW plat from 1975 that contains the legal description of the ROW is included in Exhibit B. The proposed ROW matches the existing ROW.

3. Facility Design Factor

a. Pipeline pressure standards

The pipe will be 12 inch C900 PVC water pipe and will meet all AWWA and Utah Division of Drinking Water requirements.

i. pipe wall thickness and pounds per square inch (psi) rating

Pipe wall thickness for 12 inch C900 PVC is approximately 0.73 inches and the working pressure rating is 235 psi.

b. Toxicity of pipeline product

The C900 PVC pipe is a non-toxic pipe rated for carrying potable water.

c. Anticipated operating temperatures

It is anticipated that the water in the pipe will vary in temperature (depending on the season from 35 to 70 degrees Fahrenheit).

d. Depth of the pipeline

The pipe will be buried at a minimum depth of 5 feet to prevent freezing. Minor variations for depth are expected where significant variations existing ground elevations occur over short distances.

e. Permanent width or size

The pipe line will be 12 inch diameter and will be placed in a 3 foot wide trench.

f. Temporary areas needed

A temporary construction ROW is requested throughout the entire length of the pipeline with 8.5 feet on both sides of the 33 foot wide permanent ROW, making a 50-foot-wide construction ROW. A temporary construction ROW of 200' x 200' is also requested adjacent to the permanent tank ROW as shown in Exhibit A.

4. Additional Components of the Right-of-way

a. Connection to an existing Right-of-way

The proposed pipe and subsequent ROW will be in the same location as the existing 4 inch pipe line ROW.

The proposed tank will be placed to the northeast of the existing tank, and the proposed ROW for the new tank will partially overlap the existing ROW authorized 200' x 200' site for the existing tank.

i. existing components on or off public land

There is currently a 4 inch waterline that will be used to fill the new storage tank and an existing 20,000 gallon tank that will remain in place and be utilized for times when the new tank is drained for maintenance.

ii. possible future components

Center leg of the requested ROW leading toward the Avalon cemetery is expected to be constructed within the next five years.

b. Location of pumping and/or compressor stations

No pumping or compressor stations are expected for the system now or in the future.

c. Need for sand and gravel and where will it be obtained

Gravel for pipe bedding will be required and will be obtained from local permitted commercial gravel pits.

d. Location of equipment storage areas

No permanent equipment storage areas are anticipated for the system. Temporary storage of construction equipment will either be in the proposed ROW or on private property.

5. Government Agencies Involved

a. FERC, USFWS

This project does not fall under the jurisdiction of the FERC, a wildlife impact study has been performed for the project and is included as Exhibit C.

b. Copy of FERC Sec. 7c Application, if applicable

N/A

c. State and local agencies that may be involved

Utah Division of Drinking Water, Uintah County, Tri-county Health

6. Construction of the Facilities

a. Construction (brief description)

Construction of the waterline will involve the following tasks:

- clearing and grubbing of the proposed pipe line alignment
- excavation of the waterline trench and stockpiling of excavated materials for the use as trench backfill
- pipe bedding, installation and backfill
- final project cleanup, placement of final cover, seeding and mulching

Construction of the water tank will involve the following tasks:

- clearing and grubbing of the proposed tank locations
- initial grading and excavation for tank foundation
- excavation for and installation of connecting piping

- placement of bedding material for tank foundation
- forming and pouring of tank foundation, walls and then lid
- final connection of piping
- coating and backfilling tank
- final grading, placement of final cover, seeding and mulching

i. major facilities (including vehicles and number of tons and loads)

Pipeline:

- 12 loads of bedding material, approximately 140 tons
- Approximately two loads of piping

Concrete water storage tank:

- Approximately 440 cubic yards of concrete will be used to construct the tank.
- At 10 yards per truck that results in 44 truckloads of concrete.
- An additional 10 truckloads of road base will be brought in under the tank base.
- An estimated 4 loads of reinforcing steel.

ii. ancillary facilities (including vehicles and number of tons and loads)

No ancillary facilities are planned for this project.

b. Work force (number of people and vehicles)

Pipeline:

- 6 workers, 3 trucks, 2 excavators, 1 loader, 1 dump truck, 1 backhoe, 1 water truck

Concrete Water Storage Tank:

- 10 workers while forming, 20 workers while pouring, 4 trucks, 2 dump trucks, 1 excavator, 1 grader, 1 compactor, 1 loader, 1 dozer, 1 water truck, 1 crane, 1 concrete pumper

c. Flagging or staking the right-of-way

Staking of the ROW will be performed as part of the construction process and will be conducted under the supervision of a licensed surveyor.

d. Clearing and grading

Prior to construction of the waterline or tank, the areas will be cleared of vegetation. The vegetation will be stockpiled and chipped for mulch after reseeding.

e. Facility construction data

i. description of construction process

The pipeline will be constructed by excavating a five (5) foot deep trench, installing gravel bedding material, installing the 12 inch PVC pipe, covering the pipe with additional gravel material and then back filling the trench with the native excavated material.

The tank will be constructed by clearing the proposed site, excavating the proposed tank location, placing and compacting road base and gravel, forming and pouring the floor, walls and lid, backfilling around and on top of the tank and placing final seeding.

f. Access to, and along, right-of-way during construction

Existing county roads are adjacent to the ROW along the east and middle legs of the water line ROW. The west leg of the water line and the tank site will be accessed by the existing two track road, for which a road ROW is being requested at this time.

g. Engineering drawings and specifications for site-specific problems relating to surface use or special mitigation

No problems were found when investigating the proposed site, and the existence of similar structures and facilities supports these observations.

h. Diagrams, drawings, and cross sections to help visualize the scope of the project

The construction drawings for the portions of the project to be located on federal lands are included in Exhibit D.

i. Special equipment that will be utilized

No specialized equipment beyond those generally used in pipe construction and concrete is planned to be utilized.

j. Contingency planning

i. holder contacts

Ouray Park Water Improvement District
Lisa Frost
HC 69 Box 127
Randlett, UT 84063
(435) 545-2415

ii. BLM contacts

BLM Vernal Field Office

k. Safety requirements

All construction will be subject to and conform to federal Occupational Safety and Health Administration (OSHA) regulations for the type of construction being performed.

l. Industrial wastes and toxic substances

No toxic substances are planned for use on the project and all fuel and lubricants for construction equipment will be stored off site.

7. Resource Values and Environmental Concerns

a. Address at level commensurate with anticipated impacts

i. location with regard to existing corridors

The tank and waterlines will be placed in corridors with existing pipes and tanks.

b. Anticipated conflicts with resources or public health and safety

- i. air, noise, geologic hazards, mineral and energy resources, paleontological resources, soils, water, vegetation, wildlife, threatened and endangered species, cultural resources, visual resources, BLM projects, recreation activities, wilderness, etc.

It is our goal that when the project is complete and reclamation is accomplished, none of the above listed resources will be compromised.

8. Stabilization and Rehabilitation

a. Soil replacement and stabilization

The top 6 inches of soil will be removed and stockpiled prior to construction. Once all areas have been backfilled and final grade established the topsoil will be replaced and a BLM approved seed mixture planted over all disturbed areas. Soil replacement and stabilization will be performed in accordance with Green River District Reclamation Guidelines.

b. Disposal of vegetation removed during construction (i.e., trees, shrubs, etc.)

Existing vegetation will be chipped and used as mulch in conjunction with the reseeding process.

c. Seeding specifications

The mix will consist of seeds included in the Zone 1 Species list for 4 to 8 inches of precipitation and meet the requirements listed in the Green River district Reclamation Guidelines. The seed mix will be composed of the following seeds broadcast at the prescribed rate. After seeding, the chipped native vegetation will be spread as mulch over the seed.

Common Name	Scientific Name	Broadcast Rate
Crested Wheatgrass	Agropyron cristatum	2 lb/acre
Siberian Wheatgrass	Agropyron fragile	2 lb/acre
Needle and Thread Grass	Stipa comata	2 lb/acre
Scarlet Globemallow	Sphaeraicea coccinea	2 lb/acre
Shadescale	Atriplex confertifolia	3 lb/acre
Fourwing Saltbrush	Atriplex canescens	2 lb/acre

d. Fertilizer

It is not anticipated that fertilizer will be used on the project.

e. Limiting access to the right-of-way

All of the pipe and tank ROWs are adjacent to existing roads, limiting access to the ROW would be difficult, costly and in some areas would require blocking existing Uintah County ROWs.

f. Will roads built during construction be reclaimed

The existing two track road that will be utilized, and for which a road ROW is being applied, will remain in service for access and maintenance purposes. No other roads will be built during construction.

9. Operation and Maintenance

a. Will new or expanded access be needed for operation and maintenance

A new access ROW is requested as part of the project for operation and maintenance of the tank and the line connecting to the tank.

- b. Will there be hydrostatic testing and subsequent release of water and what is the anticipated volume.

It is anticipated that approximately 50,000 gallons of water will be used to perform hydrostatic testing of the water line and for disinfecting of the new water line and tank. This water will be conveyed off federal lands via the water line and disposed of on private property or in accordance with state, county and local regulations.

- c. Will removal and/or addition of pipe and/or pumps be required as part of pipeline maintenance

No pumps are included or planned as part of the project or as part of future additions to the project on BLM lands. From time to time, breaks in the waterline will occur that may necessitate removal and replacement of short sections of the line.

- d. Will all maintenance activities be confined within the right-of-way

Yes. All maintenance activities will occur in the right-of-way.

- e. Safety

Maintenance activities will conform to OSHA guidelines for pipe and tank operation and maintenance.

- f. Will industrial wastes and toxic substances be generated or stored on right-of-way

No. All toxic substances will be stored in approved storage facilities and not on the right-of-way.

- g. Inspection and maintenance schedules

- i. will these be conducted on-the-ground and/or by aircraft

Inspection and maintenance will occur on the ground.

- ii. if by aircraft, will the aircraft require landing strips and/or heliports

N/A

- h. Work schedules

The tank and line will be inspected on a weekly basis for proper operation.

- i. Fire control

Ouray Park Water Improvement District and its contractors will do everything within reason and within its power to prevent fires on or near the construction area during the construction of the tank and water line, as well as throughout the term of the right-of-way. Each vehicle on the job site will be equipped with a radio and fire extinguisher.

- j. Contingency planning

In the event that the tank must be taken out of service, the existing 20,000 gallon tank will be utilized until such time as the new tank can be repaired and placed back in service.

In the event that the waterline must be removed from service, the system will be supplied with water utilizing a tie over from the 4 inch to the 12 inch line on the system outside of BLM lands.

10. Termination and Restoration

a. Removal of structures

It is unlikely that the system will be abandoned or removed from service. In the event that the system is abandoned, it is not proposed that the tanks be removed.

b. Will pipe be removed or cleaned and left in ground

Pipe will be cleaned and left in the ground.

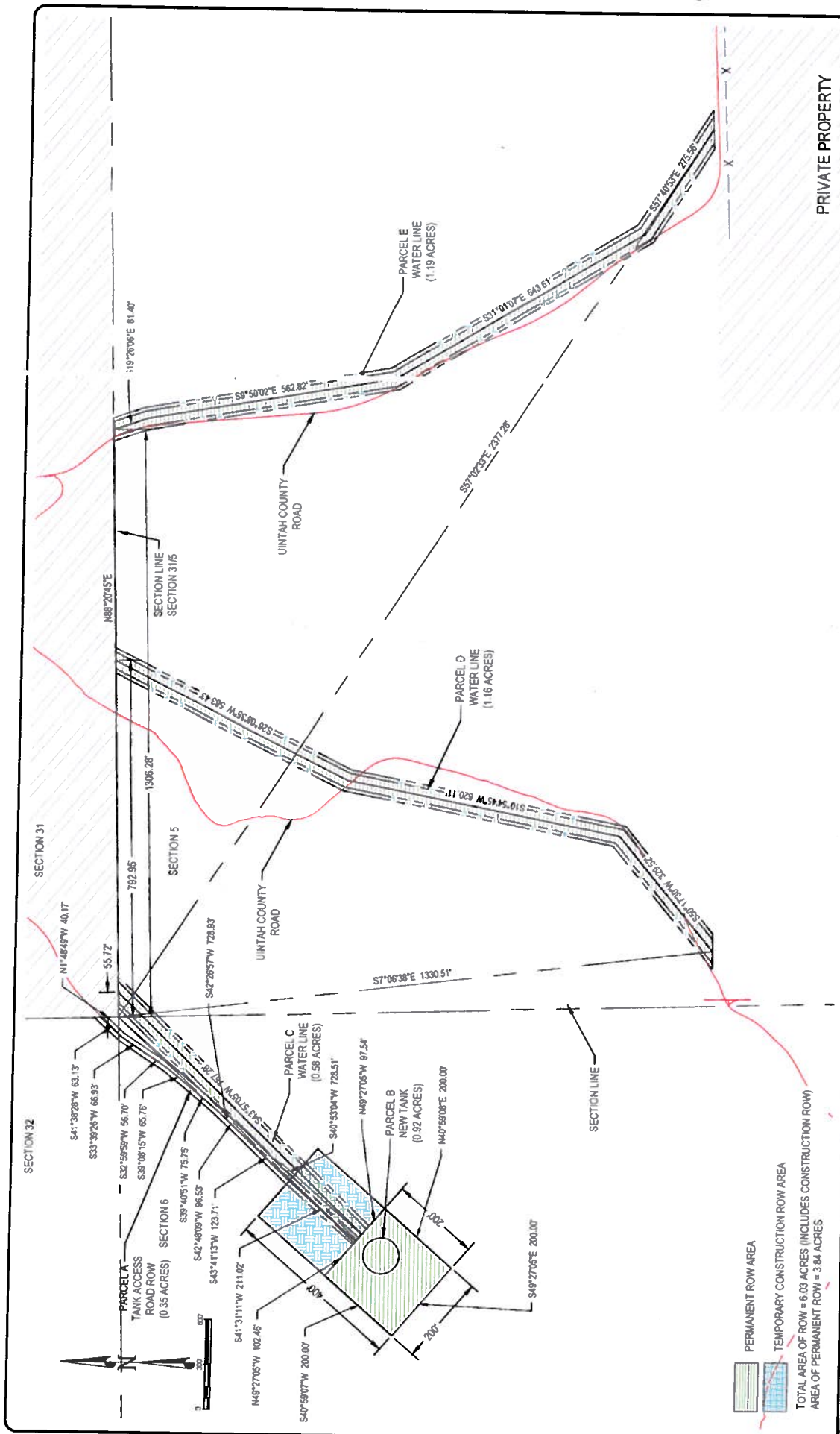
c. Obliteration of roads

Most of the roads are existing Hinton County roads. The access road to the tank would be obliterated and the ROW relinquished in the event of the system being abandoned.

d. Stabilization and re-vegetation of disturbed areas

If the tanks are removed and the access road obliterated, the disturbed area will be stabilized and re-vegetated, utilizing the same process detail above in section 8. Stabilization and Restoration.

EXHIBIT A



CALDWELL
RICHARDS
SOERSEN
ANSWERS TO INFRASTRUCTURE

Virtual Office
200 N. 17th Street
PO Box 1000
Cheyenne, WY 82001
Phone: 307.777.1111
Fax: 307.777.1112
www.caldwellsorenson.com

OURAY PARK WATER IMPROVEMENT DISTRICT
OURAY PARK WATERLINE IMPROVEMENT PROJECT
BLM ROW EXHIBIT

UTAH COUNTY

REVISIONS	
NO.	DESCRIPTION
1	ISSUED FOR PERMITTING
2	FOR RECORD

DATE: 03/20/15

BY: [Signature]

CHECKED: [Signature]

SCALE: AS SHOWN

EXHIBIT A